

1 ENERGY AND ENVIRONMENT CABINET

2 Department for Environmental Protection

3 Division of Compliance Assistance

4 (New Administrative Regulation)

5 401 KAR 11:040. Water treatment and distribution system operators; classification and
6 qualifications.

7 RELATES TO: KRS 223.160-220, 224.10-100, 224.10-110

8 STATUTORY AUTHORITY: KRS 223.160-220, 224.10-100, 224.10-110

9 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 and 224.10-110
10 authorize the cabinet to promulgate administrative regulations concerning the certification of
11 water operators. This administrative regulation establishes classification of water treatment and
12 distribution operator certifications and establishes the qualifications for certification.

13 Section 1. Classification of Water Operator Certifications. (1) Water treatment
14 certifications.

15 (a) Limited certification. As provided in KRS 223.160(2), an operator issued a limited
16 certificate may have primary responsibility for a water treatment facility for a school and for a
17 semipublic water supply.

18 (b) Class IA-D Treatment certification. 1. A Class IA-D treatment operator may be in direct
19 responsible charge for a water treatment plant with a design capacity less than 50,000 gallons per
20 day and that treats surface water, groundwater under the direct influence of surface water or
21 groundwater not under the direct influence of surface water that uses a component of conventional

1 filtration treatment and is responsible for the distribution of treated water.

2 2. A Class IA-D Treatment operator shall not be in direct responsible charge for a water
3 treatment plant with a larger design capacity.

4 (c) Class IA-D Treatment certification with an Operator in Training designation. A Class IA-
5 D Treatment operator with an Operator in Training designation shall not be in direct responsible
6 charge of any treatment plant.

7 (d) Class IB-D Treatment certification. 1. A Class IB-D Treatment operator may be in direct
8 responsible charge for a water treatment plant with a design capacity less than 50,000 gallons per
9 day and that treats groundwater not under the direct influence of surface water and does not
10 employ any component of conventional filtration treatment and is responsible for distribution of
11 treated water.

12 2. A Class IB-D Treatment operator shall not be in direct responsible charge for a water
13 treatment plant with a larger design capacity.

14 (e) Class IB-D Treatment certification with an Operator in Training designation. A Class IB-
15 D Treatment operator with an Operator in Training designation shall not be in direct responsible
16 charge of any treatment plant.

17 (f) Class IIA Treatment certification. 1. A Class IIA Treatment operator may be in direct
18 responsible charge for a water treatment plant with a design capacity of less than 500,000 gallons
19 per day and that treats surface water, groundwater under the direct influence of surface water or
20 groundwater not under the direct influence of surface water that uses a component of conventional
21 filtration treatment.

22 2. A Class IIA Treatment operator shall not be in direct responsible charge for a water
23 treatment plant with a larger design capacity.

1 (g) Class IIB-D Treatment certification. 1. A Class IIB-D Treatment operator may be in
2 direct responsible charge for a water treatment plant with a design capacity of less than 500,000
3 gallons per day and that treats groundwater not under the direct influence of surface water and
4 does not employ any component of conventional filtration treatment and is responsible for the
5 distribution of treated water.

6 2. A Class IIB-D Treatment operator shall not be in direct responsible charge for a water
7 treatment plant with a larger design capacity.

8 (h) Class IIIA Treatment certification. 1. A Class IIIA Treatment operator may be in direct
9 responsible charge for a water treatment plant with a design capacity of less than 3,000,000
10 gallons of water per day and that treats surface water, ~~or~~ groundwater under the direct influence
11 of surface water or groundwater not under the direct influence of surface water that uses a
12 component of conventional filtration treatment;

13 2. A Class IIIA Treatment operator shall not be in direct responsible charge for a water
14 treatment plant with a larger design capacity.

15 (i) Class IIIB Treatment certification. 1. A Class IIIB Treatment operator may be in direct
16 responsible charge for a water treatment plant with a design capacity of less than 3,000,000
17 gallons of water per day and that treats groundwater not under the direct influence of surface
18 water and does not employ any component of conventional filtration treatment.

19 2. A Class IIIB Treatment operator shall not be in direct responsible charge for a water
20 treatment plant with a larger design capacity.

21 (j) Class IVA Treatment certification. 1. A Class IVA Treatment operator may be in direct
22 responsible charge of any water treatment plant that treats surface water, groundwater under the
23 direct influence of surface water or groundwater not under the direct influence of surface water

1 that uses a component of conventional filtration treatment.

2 (k) Class IVB Treatment certification. 1. A Class IVB Treatment operator may be in direct
3 responsible charge of any water treatment plant that treats groundwater not under the direct
4 influence of surface water and does not employ any component of conventional filtration
5 treatment.

6 (2) Water distribution certifications. (a) Class ID Distribution certification. 1. A Class ID
7 Distribution operator may be in direct responsible charge for a water distribution system serving
8 a population less than 1,500.

9 2. A Class ID Distribution operator shall not be in direct responsible charge for a water
10 distribution system serving a larger population.

11 (b) Class ID Distribution certification with an Operator in Training designation. A Class ID
12 Distribution operator with an Operator in Training designation shall not be in direct responsible
13 charge of any distribution system.

14 (c) Class IID Distribution certification. 1. A Class IID Distribution operator may be in direct
15 responsible charge for a water distribution system serving a population less than 15,000.

16 2. A Class IID Distribution operator shall not be in direct responsible charge for a water
17 distribution system serving a larger population.

18 (d) Class IIID Distribution certification. 1. A Class IIID Distribution operator may be in
19 direct responsible charge for a water distribution system serving a population less than 50,000.

20 2. A Class IIID Distribution operator shall not be in direct responsible charge for a water
21 distribution system serving a larger population.

22 (e) Class IVD Distribution certification. 1. A Class IVD Distribution operator may be in
23 direct responsible charge of any water distribution system.

(3) Bottled water certification. A Bottled Water operator may be in direct responsible charge for a bottled water system that bottles water for sale.

Section 2. Water Operator Qualifications: Experience, Education, and Equivalencies. An individual desiring to become a certified operator shall meet the following minimum qualifications prior to the cabinet approving the individual to take a certification examination as provided in 401 KAR 11:050.

(1) The education and experience requirement for each class of water treatment certifications shall be as follows:

(a) Limited certification:

1. Education. A minimum level of education shall not be required.

2. Experience. A minimum level of experience shall not be required.

(b) Class IA-D Treatment certification:

1. Education. A High school diploma or general education development (GED) certificate shall be required; and

2. Experience. One (1) year of acceptable operation of a public water system with any design capacity and that treats surface water or groundwater under the direct influence of surface water or groundwater not under the direct influence of surface water that uses a component of conventional filtration treatment and is responsible for the distribution of treated water shall be required.

(c) Class IA-D Treatment certification with an Operator in Training designation:

1. Education. A High school diploma or general education development (GED) certificate shall be required; and

2. Experience. Experience shall not be required.

1 (d) Class IB-D Treatment certification:

2 1. Education. A High school diploma or general education development (GED) certificate
3 shall be required; and

4 2. Experience. One (1) year of acceptable operation of a public water system with any design
5 capacity shall be required.

6 (e) Class IB-D Treatment certification with an Operator in Training designation:

7 1. Education. A High school diploma or general education development (GED) certificate
8 shall be required; and

9 2. Experience. Experience shall not be required.

10 (f) Class IIA Treatment certification:

11 1. Education. A High school diploma or general education development (GED) certificate
12 shall be required; and

13 2. Experience. Two (2) years of acceptable operation of a water treatment plant shall be
14 required.

15 a. Six (6) months of the required experience shall be in a water treatment plant with a design
16 capacity of greater than or equal to 50,000 gallons per day and that treats surface water or
17 groundwater under the direct influence of surface water or groundwater not under the direct
18 influence of surface water that uses a component of conventional filtration treatment.

19 (g) Class IIB-D Treatment certification:

20 1. Education. A High school diploma or general education development (GED) certificate
21 shall be required; and

22 2. Experience. Two (2) years of acceptable operation of a public water system shall be
23 required.

1 a. Six (6) months of the required experience shall be in a water treatment plant that treats
2 surface water or groundwater under the direct influence of surface water and is responsible for
3 the distribution of treated water; or

4 b. Six (6) months of the required experience shall be in a water treatment plant with a design
5 capacity of greater than or equal to 50,000 gallons per day that treats groundwater not under the
6 direct influence of surface water and does not employ any component of conventional filtration
7 treatment and is responsible for the distribution of treated water.

8 (h) Class IIIA Treatment certification:

9 1. Education. A High school diploma or general education development (GED) certificate
10 shall be required; and

11 2. Experience. Three (3) years of acceptable operation of a public water treatment plant shall
12 be required.

13 a. One (1) year of the required experience shall be in a water treatment plant with a design
14 capacity of greater than or equal to 50,000 gallons per day and that treats surface water or
15 groundwater under the direct influence of surface water or groundwater not under the direct
16 influence of surface water that uses a component of conventional filtration treatment.

17 (i) Class IIIB Treatment certification:

18 1. Education. A High school diploma or general education development (GED) certificate
19 shall be required; and

20 2. Experience. Three (3) years of acceptable operation of a public water treatment plant shall
21 be required.

22 a. One (1) year of the required experience shall be in a water treatment plant with a design
23 capacity of greater than or equal to 50,000 gallons per day and that treats surface water or

1 groundwater under the direct influence of surface water or groundwater not under the direct
2 influence of surface water that uses a component of conventional filtration treatment; or

3 b. One (1) year of the required experience shall be in a water treatment plant with a design
4 capacity of greater than or equal to 50,000 gallons per day and that treats groundwater not under
5 the direct influence of surface water and does not employ any component of conventional
6 filtration treatment.

7 (j) Class IVA Treatment certification:

8 1. Education. A baccalaureate degree in engineering, science, or equivalent shall be required;
9 and

10 2. Experience. One (1) year of acceptable operation of a public water treatment plant with a
11 design capacity of greater than or equal to 500,000 gallons per day and that treats surface water
12 or groundwater under the direct influence of surface water or groundwater not under the direct
13 influence of surface water that uses a component of conventional filtration treatment shall be
14 required.

15 (k) Class IVB Treatment certification:

16 1. Education. A baccalaureate degree in engineering, science, or equivalent shall be required;
17 and

18 2. Experience. One (1) year of acceptable operation of a public water treatment plant with a
19 design capacity of greater than or equal to 500,000 gallons per day.

20 (2) The educational and experience qualifications for water distribution certifications shall be
21 as follows:

22 (a) Class ID Distribution certification:

23 1. Education. A High school diploma or general education development (GED) certificate

1 shall be required; and

2 2. Experience. One (1) year of acceptable operation of a water distribution system shall be
3 required.

4 (b) Class ID Distribution certification with an Operator in Training designation:

5 1. Education. A High school diploma or general education development (GED) certificate
6 shall be required; and

7 2. Experience. Experience shall not be required.

8 (c) Class IID Distribution certification:

9 1. Education. A High school diploma or general education development (GED) certificate
10 shall be required; and

11 2. Experience. Two (2) years of acceptable operation of a water distribution system shall be
12 required.

13 a. Six (6) months of the required experience shall be in a water distribution system serving a
14 population greater than or equal to 1,500.

15 (d) Class IIID Distribution certification:

16 1. Education. A High school diploma or general education development (GED) certificate
17 shall be required; and

18 2. Experience. Three (3) years of acceptable operation of a water distribution system shall be
19 required.

20 a. One (1) year of the required experience shall be in a water distribution system serving a
21 population greater than or equal to 1,500.

22 (e) Class IVD Distribution certification:

23 1. Education. A baccalaureate degree in engineering, science, or equivalent shall be required;

1 and

2 2. Experience. One (1) year of acceptable operation of a water distribution system serving a
3 population greater than or equal to 15,000 shall be required.

4 (3) Bottled water certification. The educational and experience qualifications for bottled
5 water certifications shall be as follows:

6 (a). Education. A High school diploma or general education development (GED) certificate
7 shall be required; and

8 (b). Experience. One (1) year of acceptable operation of a bottled water system shall be
9 required.

10 (3) Substitutions. The cabinet shall allow the following substitutions for the qualifications
11 specified in subsections (1), (2), and (3) of this section:

12 (a) Education in environmental engineering; environmental technology; and biological,
13 physical, or chemical sciences shall be substituted if the substitution does not exceed fifty (50)
14 percent of the required experience.

15 1. An associate degree shall be considered equivalent to two (2) years of experience.

16 2. A baccalaureate degree shall be considered equivalent to four (4) years of experience.

17 3. Education that did not result in a degree in a related field may be substituted for the
18 required experience as follows:

19 a. Ten (10) contact hours, one (1) CEU, or one (1) post-secondary education quarter hour
20 with a passing grade shall be considered equivalent to 0.022 years of experience.

21 b. One (1) post-secondary education semester hour with a passing grade shall be
22 considered equivalent to 0.033 years of experience.

23 4. Education applied to the experience requirements specified in subsections (1) and (2) of

1 this section shall not be applied to the education requirement.

2 (b) Experience may be substituted for the educational requirement as follows:

3 1. One (1) year of operational experience at a water system may substitute for one (1) year of
4 education.

5 2. The cabinet may allow partial substitution of the education requirement by experience in
6 maintenance, laboratory analysis, or other work related to the collection, treatment, or
7 distribution of drinking water or wastewater. To establish how much experience shall be
8 accepted, the cabinet shall determine the degree of technical knowledge needed to perform the
9 work and the degree of responsibility the applicant had in the operation of the system.

10 3. Experience applied to the education requirement specified in subsections (1) and (2) of this
11 section shall not be applied to the experience requirement.

12 (c) Water treatment and distribution experience may be substituted as follows:

13 1. Two (2) years of distribution system experience shall be considered equivalent to one (1)
14 year of treatment experience.

15 2. One (1) year of treatment experience shall be considered equivalent to one (1) year of
16 distribution system experience.

401 KAR 11:040 "Water treatment and distribution system operators; classification and qualifications"
approved for promulgation:

7/13/09

Date

Henry C. A. List

Henry "Hank" List, Deputy Secretary FOR
Leonard K. Peters, Secretary
Energy and Environment Cabinet

PUBLIC HEARING AND PUBLIC COMMENT PERIOD: A public hearing on this administrative regulation shall be held on August 25, 2009 at 10:00 A.M. (Eastern Time) at 300 Fair Oaks Lane, Conference Room 301D, Frankfort, Kentucky. Individuals interested in being heard at this hearing shall notify this agency in writing by August 18, 2009, five workdays prior to the hearing, of their intent to attend. If no notification of intent to attend the hearing is received by that date, the hearing may be canceled. This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will not be made unless a written request for a transcript is made. If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until August 31, 2009. Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to the contact person.

CONTACT PERSON: Julia Kays, Regulations Coordinator
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REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Administrative Regulation #: 401 KAR 11:040

Contact Person: Aaron Keatley, Director

(1) Provide a brief summary of:

(a) What this administrative regulation does: This administrative regulation establishes standards for the classification and qualifications of certified operators.

(b) The necessity of this administrative regulation: This administrative regulation is necessary to establish the minimum qualifications for an individual before they can take a certification examination. It also defines the substitutions that may be used to meet the minimum qualifications for certification

(c) How this administrative regulation conforms to the content of the authorizing statutes: This regulation conforms to KRS Chapters 223.160-220, 224.10-110 and 224.73-110 which authorizes the cabinet to implement a certification program for water and wastewater system operators. This administrative regulation establishes standards for classification and qualification of certified operators.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation clarifies the minimum qualifications for certification and establishes certification classifications as mandated by KRS 223.160-220.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation:

(b) The necessity of the amendment to this administrative regulation:

(c) How the amendment conforms to the content of the authorizing statutes:

(d) How the amendment will assist in the effective administration of the statutes:

This is a new administrative regulation.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: Certified water treatment plant and distribution system operators will be affected by this new administrative regulation. There are approximately 2600 operators currently certified by the water operator certification program. State or local governments that operate water treatment plants or distribution systems will be indirectly affected by this new administrative regulation.

(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: Certified operators, state and local governments, will refer to this new administrative regulation to determine the necessary education and experience requirements for each water treatment and distribution system classification.

(b) In complying with this administrative regulation or amendment, how much will it cost

each of the entities identified in question (3):

Under this new administrative regulation, individuals should not expect to experience any additional cost.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): Certified operators, state and local governments, will gain a clear understanding of the classification and qualification requirements and as a result understand what experience and education must be obtained prior to becoming certified.

(5) Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:

(a) Initially: No additional costs are anticipated.

(b) On a continuing basis: No additional costs are anticipated.

(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: Implementation of this new administrative regulation is funded through agency and federal funds.

(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: No additional fees or funding will be required to implement this administrative regulation.

(8) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees: This administrative regulation will not directly or indirectly establish any fees.

(9) TIERING: Is tiering applied? (Explain why or why not). Yes, tiering is applied. Different operator classifications require varying levels of education and experience for certification. These requirements are tiered based on the size of the treatment and collection processes.

FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

Regulation #: 401 KAR 11:040

Contact Person: Aaron Keatley, Director

1. **Does this administrative regulation relate to any program, service, or requirements of a state or local government (including cities, counties, fire departments, or school districts)?**

Yes X No

If yes, complete questions 2-4.

2. **What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation?**

This new administrative regulation relates to state or local governments that operator water treatment plants or distribution systems.

3. **Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation.**

Safe Drinking Water Act Title 42, Chapter 6A, Sub-chapter VII, Part B, Section 300g-8 (Operator Certification) and Part E, Section 300j-12 (DW Revolving Loan Fund); 40 C.F.R. 142.16 on Special Primacy requirements; KRS Chapters 223.160-220, 224.10-100, 224.10-110, and 224.73-110.

4. **Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.**

(a) **How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year?** This new administrative regulation will not generate additional state or local government revenue.

(b) **How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years?** This administrative regulation will not generate additional state or local government revenue.

(c) **How much will it cost to administer this program for the first year?** No additional cost is anticipated.

(d) **How much will it cost to administer this program for subsequent years?** No additional cost is anticipated.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-):

Expenditures (+/-):

Other Explanation: This new administrative regulation clarifies the classification and qualifications for certified operators. No fiscal impacts are anticipated.

FEDERAL MANDATE ANALYSIS COMPARISON

Administrative Regulation#: 401 KAR 11:040

Contact Person: Aaron Keatley, Director

1. Federal statute or regulation constituting the federal mandate.

Safe Drinking Water Act Title 42, Chapter 6A, Sub-chapter VII, Part B, Section 300g-8 (Operator Certification) and Part E, Section 300j-12 (DW Revolving Loan Fund); 40 C.F.R. 142.16 on Special Primacy requirements.

2. State compliance standards.

KRS 223.160-220, KRS 224.10-110

3. Minimum or uniform standards contained in the federal mandate.

US Code Title 42, Chapter 6A, Subchapter XII, Part B, subpart 300g-8, provides the Safe Drinking Water Act (SDWA) guidelines for establishing an operator certification program at the state level (section 1419a of the Act). Final guidelines and additions to those guidelines were published in the February 5, 1999 and April 18, 2001 Federal Registers. Minimum standards for certification of operators take into account existing State programs, complexity of the water system, size of the water system, and other factors that provide an effective program at a reasonable cost. The Final Guidelines in the two Federal Registers cover public health objectives, anti-backsliding, baseline standards, system/operator classification, operator qualifications, enforcement, certification renewal and the resources needed to implement the program.

4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate?

No

5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements.

Not applicable.